

401 KAR 61:090. Existing automobile and light-duty truck surface coating operations.

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120, 42 U.S.C. 7401 et seq., 7407, 7408, 7410

STATUTORY AUTHORITY: KRS 224.10-100

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Environmental and Public Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. 42 USC 7410 likewise requires the state to implement standards for national primary and secondary ambient air quality. This administrative regulation provides for the control of volatile organic compound emissions from existing automobile and light-duty truck surface coating operations.

Section 1. Definitions. As used in this administrative regulation, all terms not defined in this section shall have the meaning given to them in 401 KAR 61:001.

(1) "Affected facility" means a coating line for automobile and light-duty truck frames, small parts, wheels, and main body parts at an assembly plant but does not include the following:

- (a) Underbottom-sound deadener coatings;
- (b) Zinc rich antirust and weld line antirust prime coatings;
- (c) Adhesive coatings or mastics;
- (d) Flexible coatings;
- (e) Plastic body fillers or caulks; or
- (f) Interior coatings which are applied after upholstery and interior plastic parts are attached to the body.

(2) "Applicator" means the mechanism or device used to apply the coating, including, but not limited to dipping and spraying.

(3) "Automobile" means all passenger cars or passenger car derivatives capable of seating twelve (12) or fewer passengers.

(4) "Classification date" means June 29, 1979.

(5) "Coating line" means a series of equipment or operations used to apply, dry, or cure any prime, topcoat or repair coatings containing volatile organic compounds (VOCs). This shall include, but is not limited to:

- (a) Mixing operations;
- (b) Process storage;
- (c) Applicators;
- (d) Drying operations including, but not limited to, flash-off area evaporation, oven drying, baking, curing, and polymerization;
- (e) Clean up operations;
- (f) Leaks, spills and disposal of VOCs;
- (g) Processing and handling of recovered VOCs;

(h) For the purposes of determining compliance with this administrative regulation, if any equipment or operation is considered to be a part of more than one (1) coating line, its VOC emissions shall be assigned to each coating line of which it is a part proportionally to the throughput of VOC it receives from or distributes to each coating line;

(i) If any portion of the series of equipment or operations qualifies for an exemption according to Section 6 of this administrative regulation, then that portion shall be considered to be a separate coating line.

(6) "Final repair coating line" means a coating line for the repainting of any coatings which are damaged during vehicle assembly.

(7) "Flash-off area" means the space between the application area and the oven.

(8) "Light-duty truck" means all motor vehicles rated at 3,864 kilograms (8,500 pounds) gross vehicle weight or less which is designed primarily for purposes of transportation of property or are derivatives of these vehicles (including, but not limited to, pickups, vans, and window vans).

(9) "Prime coat coating line" means a coating line for the first coating and surfacer which are responsible for protecting the surface from corrosion and providing for good adhesion of the topcoat.

(10) "Process storage" means mixing tanks, holding tanks, and other tanks, drums, or other containers which contain surface coatings, VOCs, or recovered VOCs; but does not mean storage tanks of petroleum liquids which are subject to 401 KAR 59:050, 401 KAR 59:052, or 401 KAR 61:050.

(11) "Topcoat coating line" means a coating line for the coating of the surface to obtain desired aesthetic effects.

(12) "Surfacer" means the spray application of primer to touchup areas on the surface not adequately covered during electrodeposition.

(13) "VOCs net input" means the total amount of VOCs input to the affected facility minus the amount of VOCs that are not emitted into the atmosphere. VOCs that are prevented from being emitted to the atmosphere by the use of control devices shall not be subtracted from the total for the purposes of determining VOCs net input. When the nature of any operation or design of equipment permits more than one (1) interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

(14) "Electrophoretic deposition" means a process of applying a coating by dipping the component in a coating bath with an electrical potential difference between the component and the bath.

Section 2. Applicability. (1) This administrative regulation shall apply to each affected facility commenced before the classification date defined in Section 1 of this administrative regulation which is located in a county or portion of a county which is designated ozone nonattainment, for any nonattainment classification except marginal, under 401 KAR 51:010.

(2) This administrative regulation shall not apply to affected facilities which are subject to local air pollution control district regulations which have been approved by the cabinet and the U.S. EPA.

Section 3. Standard for VOCs. No person shall cause, allow, or permit an affected facility to discharge into the atmosphere more than fifteen (15) percent by weight of the VOCs net input into the affected facility.

Section 4. Compliance. (1) If applicable, compliance is determined by "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", which has been incorporated by reference in Section 7 of this administrative regulation.

(2) In all cases the design of any control system shall be subject to approval by the cabinet.

(3) Compliance with the standard in Section 3 of this administrative regulation shall be demonstrated by a material balance unless the cabinet determines that a material balance is not possible. If a material balance is not possible, compliance shall be determined based upon an engineering analysis by the cabinet of the control system design, control device efficiency, control system capture efficiency, and any other factors that may influence the performance of the system. If requested by the cabinet, performance tests specified by the cabinet shall be conducted to determine the efficiency of the control device. Capture efficiency shall be determined by procedures specified in 401 KAR 50:047.

(4) With the prior approval of the cabinet, the owner or operator may elect to effect all changes

necessary to qualify for an exemption under Section 6 of this administrative regulation.

(5) If deemed necessary by the cabinet, the cabinet shall obtain samples of the coatings used at an affected facility to verify that the coatings meet the requirements in Section 6 of this administrative regulation.

Section 5. Compliance Timetable. (1) Affected facilities which were subject to this administrative regulation as in effect June 29, 1979, shall have achieved final compliance by January 1, 1983, for prime coatings systems and final repair systems and by January 1, 1986, for topcoat systems.

(2) The owner or operator of an affected facility that becomes subject to this administrative regulation on or after the effective date of this administrative regulation shall be required to complete the following:

(a) Prime coatings systems, topcoat systems, and final repair coating systems except as provided for in paragraph (b) of this subsection:

1. A final control plan for achieving compliance with this administrative regulation shall be submitted no later than nine (9) months after the date the affected facility becomes subject to this administrative regulation.

2. The control system contract or the exempt coatings contracts and purchase orders shall be awarded no later than eleven (11) months after the date the affected facility becomes subject to this administrative regulation.

3. On-site construction or installation of emission control equipment or process changes for exempt coatings shall be initiated no later than thirteen (13) months after the date the affected facility becomes subject to this administrative regulation.

4. On-site construction or installation of emission control equipment or process changes for exempt coatings shall be completed no later than seventeen (17) months after the date the affected facility becomes subject to this administrative regulation.

5. Final compliance shall be achieved no later than eighteen (18) months after the date the affected facility becomes subject to this administrative regulation.

6. If an affected facility becomes subject to this administrative regulation because it is located in a county previously designated nonurban nonattainment or redesignated in 401 KAR 51:010 after November 15, 1990, final compliance may be extended to May 31, 1995, and the schedule in paragraphs (a) through (d) of this subsection adjusted by the cabinet.

(b) Prime coating lines which are using electrophoretic deposition on or before the effective date of this administrative regulation shall be in compliance on the effective date of this administrative regulation.

Section 6. Exemptions. (1) Any affected facility shall be exempt from Section 3 of this administrative regulation if the VOC content of the coating is:

(a) Prime coating line: 0.14 kg/l of coating (one and two-tenths (1.2) lb/gal), excluding water or exempt solvent or both, which shall be applied by electrophoretic deposition and 0.34 kg/l of coating (two and eight-tenths (2.8) lb/gal), excluding water or exempt solvent or both, delivered to the applicators associated with the surfacer. An alternative for the surfacer is fifty-five (55) percent solids by volume organic-borne prime coat applied with a minimum of sixty-five (65) percent transfer efficiency, or one and nine-tenths (1.9) kg/l (fifteen and one-tenth (15.1) lb/gal) of solids deposited. An alternative for the prime coating line is an organic borne prime coat consisting of a minimum of fifty-five (55) percent solids by volume which is applied with a minimum of fifty (50) percent transfer efficiency.

(b) Topcoat coating line: 0.34 kg/l of coating (two and eight-tenths (2.8) lb/gal), excluding water or exempt solvent or both, delivered to the applicator(s) associated with the topcoat coating line or

a fifty (50) percent solids by volume organic-borne topcoat applied with a minimum of sixty-five (65) percent transfer efficiency, or one and nine-tenths (1.9) kg/l (fifteen and one-tenth (15.1) lb/gal) of solids deposited.

(c) Repair coating line: 0.58 kg/l of coating (four and eight-tenths (4.8) lb/gal), excluding water or exempt solvent or both, as delivered to the applicator applied with a minimum of sixty-five (65) percent transfer efficiency.

(2) Any affected facility using this section may elect to use a weighted average of the coatings used in the particular coating line involved. If this average meets the exemption then all the coatings shall be considered to meet the exemption.

(3) The exemptions specified in this section may be achieved by:

(a) Use of low solvent coating; or

(b) Any other emission reduction process or equipment shown to be as effective.

(4) Low-use coatings shall be exempt from Section 3 of this administrative regulation if the plantwide consumption of these coatings in the aggregate is less than or equal to fifty-five (55) gallons during the previous twelve (12) months.

Section 7. Reference Material. (1) Incorporation by Reference. The following document is incorporated by reference: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Topcoat Operations," EPA-450/3-88-018, December 1988, available from U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711 and the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161.

(2) The document incorporated by reference in subsection (1) of this section is available for public inspection and copying, subject to copyright law, at the following main and regional offices of the Kentucky Division for Air Quality during the normal working hours of 8 a.m. to 4:30 p.m., local time.

(a) Kentucky Division for Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601, (502) 564-3999/(502) 573-3382;

(b) Ashland Regional Office, 1550 Wolohan Drive, Suite 1, Ashland, Kentucky 41102-8942, (606) 929-5285;

(c) Bowling Green Regional Office, 1508 Westen Avenue, Bowling Green, Kentucky 42104, (270) 746-7475;

(d) Florence Regional Office, 8020 Veterans Memorial Drive, Suite 110, Florence, Kentucky 41042, (859) 525-4923;

(e) Hazard Regional Office, 233 Birch Street, Suite 2, Hazard, Kentucky 41701, (606) 435-6022;

(f) London Regional Office, 875 South Main Street, London, Kentucky 40741, (606) 330-2080;

(g) Owensboro Regional Office, 3032 Alvey Park Drive West, Suite 700, Owensboro, Kentucky 42303, (270) 687-7304; and

(h) Paducah Regional Office, 130 Eagle Nest Drive, Paducah, Kentucky 42003, (270) 898-8468. (5 Ky.R. 494; Am. 6 Ky.R. 37; eff. 6-29-79; 18 Ky.R. 2643; 2953; 3359; eff. 6-24-92; TAm eff. 8-9-2007; TAm. 5-20-2010; TAm eff. 7-8-2016.)